

FOCUS

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2015 Vital Statistics

Missouri resident deaths reached a record high number for the third consecutive year, increasing by 2.9 percent from 58,141 in 2014 to 59,810 in 2015 (See Table 1). Nationally, deaths increased to more than 2.7 million in 2015, also a record number as deaths increased by about 3 percent. The state life expectancy decreased by 0.4 years from 77.7 years in 2014 to 77.3 years in 2015, the state's shortest life expectancy since 2007. This compares to 78.8 years, the latest

available national life expectancy in 2014. Life expectancy for Missouri females decreased from 80.1 in 2014 to 79.9 years in 2015, while male life expectancy decreased from 75.1 years in 2014 to 74.8 in 2015.

As reflected in Table 2, deaths from nine of the ten leading causes of death increased [in](#) 2015 compared with 2014. The one exception was cancer, which decreased slightly in 2015. The order of the ten leading causes remained the same

Table 1

Vital Statistics for Missouri: 2005, 2014 and 2015

| | <i>Numbers</i> | | | <i>Rates per 1,000 Population</i> | | |
|--------------------|----------------|--------|--------|-----------------------------------|--------|-------|
| | 2005 | 2014 | 2015 | 2005 | 2014 | 2015 |
| Births | 78,547 | 75,104 | 75,042 | 13.6 | 12.4 | 12.3 |
| Deaths | 54,324 | 58,141 | 59,810 | 9.4 | 9.6 | 9.8 |
| Natural increase | 24,223 | 16,963 | 15,232 | 4.2 | 2.8 | 2.5 |
| Marriages | 40,675 | 40,779 | 41,377 | 7.0 | 6.7 | 6.8 |
| Divorces | 21,013 | 19,877 | 19,330 | 3.6 | 3.3 | 3.2 |
| Infant deaths | 588 | 456 | 489 | 7.5* | 6.1* | 6.5* |
| Abortions | 11,619 | 8,129 | 7,474 | 147.9* | 108.2* | 99.6* |
| Population (1000s) | 5,790 | 6,064 | 6,084 | | | |

*Per 1,000 live births

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in 2014 and 2015. The ten leading causes of death for 2014 and 2015 were respectively heart disease, cancer, chronic lung disease, unintentional injuries, stroke, Alzheimer's disease, nephritis (kidney disease), diabetes, pneumonia and influenza, and suicide. The cause with the largest percentage increase in deaths was Alzheimer's disease with a 6 percent increase. Notable among the causes outside the top ten was a 23 percent increase in homicides from 440 in 2014 to 539 in 2015. This is the highest homicide count since 1994.

In terms of long-term ten year changes, suicides increased by 43 percent from 2005 to 2015, deaths from Alzheimer's disease increased by 33 percent, and chronic lung disease and nephritis deaths each increased by 28 percent. Deaths from unintentional injuries increased by 16 percent from 2005 to 2015, with the subcategory poisoning deaths increasing by 75 percent. On the positive side, pneumonia and influenza deaths decreased by 14 percent and stroke deaths decreased by 9 percent. Stroke was the third leading cause in 2005 and has dropped to the fifth leading cause in 2015. Heart disease mortality, the leading cause of death, had been decreasing sharply from a peak of 18,335 deaths in 1995 to a low of 13,609 in 2012. However since 2012, deaths due to heart disease have increased 8.6 percent to 14,778. The number of cancer deaths has been fairly steady throughout the last 20 years, with some improvement in rates.

Missouri resident live births decreased for the eighth consecutive year in 2015 as 75,042 babies were born compared with 75,104 in 2014 (Table 1). Missouri births have decreased by 8.4 percent since reaching a peak of 81,883 in 2007.

Between 2014 and 2015, teen births continued to decrease moving from 5,281 to 4,878 births born to mothers under the age of 20. This is a significant 44 percent decline in comparison to the 2005 count of 8,707. Early teen (less than age 18) births also decreased, moving from 1,406 in 2014 to 1,249 in 2015. This is 53 percent lower than the count ten years earlier in 2005. As Table 3 reflects, teen births have experienced a substantial decrease among both white and African-American teen mothers.

The infant death rate increased in 2015 from 6.1 in 2014 to 6.5 per 1,000 live births in 2015 (See Table 3). However, it is still 13 percent lower than the rate of 7.5 per 1,000 live births which occurred in 2005. Missouri's 2015 infant death rate of 6.5 per 1,000 live births was 11 percent higher than the most recent national rate of 5.8 in 2014. The 2015 Missouri infant death rate for African-Americans of 12.7 per 1,000 live births was nearly 2.4 times the white infant death rate of 5.4. The 2005 ratio of African-American infant mortality to white infant mortality was nearly the same as in 2015.

After five consecutive years of increases, the rate of inadequate prenatal care decreased in 2015 from 20.2 percent in 2014 to 19.4 percent in

Table 2
Leading Causes of Death with Rates: Missouri Residents 2005, 2014 and 2015

| <u>Leading Causes of Death</u> | <i>Numbers</i> | | | <i>Rates per 100,000 Population</i> | | | <i>Percent Change</i> | |
|--------------------------------|----------------|--------|--------|-------------------------------------|-------|-------|-----------------------|---------|
| | 2005 | 2014 | 2015 | 2005 | 2014 | 2015 | 2005-15 | 2014-15 |
| Heart | 14,818 | 14,210 | 14,778 | 255.2 | 234.3 | 242.9 | -0.3 | 4.0 |
| Cancer | 12,381 | 13,009 | 12,938 | 213.2 | 214.5 | 212.7 | 4.5 | -0.5 |
| Lung cancer | 3,882 | 3,963 | 3,864 | 66.9 | 65.4 | 63.5 | -0.5 | -2.5 |
| Chronic lung disease | 3,063 | 3,739 | 3,928 | 52.7 | 61.7 | 64.6 | 28.2 | 5.1 |
| Unintentional injury | 2,807 | 3,156 | 3,249 | 48.3 | 52.0 | 53.4 | 15.7 | 2.9 |
| Motor vehicle | 1,188 | 779 | 894 | 20.5 | 12.8 | 14.7 | -24.7 | 14.8 |
| Falls | 594 | 732 | 743 | 10.2 | 12.1 | 12.2 | 25.1 | 1.5 |
| Poisonings | 528 | 987 | 924 | 9.1 | 16.3 | 15.2 | 75.0 | -6.4 |
| Other | 497 | 658 | 688 | 8.6 | 10.9 | 11.3 | 38.4 | 4.6 |
| Stroke | 3,316 | 3,010 | 3,021 | 57.1 | 49.6 | 49.7 | -8.9 | 0.4 |
| Alzheimer's disease | 1,631 | 2,047 | 2,169 | 28.1 | 33.8 | 35.7 | 33.0 | 6.0 |
| Nephritis & nephrosis | 1,154 | 1,446 | 1,480 | 19.9 | 23.8 | 24.3 | 28.2 | 2.4 |
| Diabetes | 1,549 | 1,413 | 1,464 | 26.7 | 23.3 | 24.1 | -5.5 | 3.6 |
| Pneumonia & influenza | 1,546 | 1,317 | 1,333 | 26.6 | 21.7 | 21.9 | -13.8 | 1.2 |
| Suicide | 731 | 1,004 | 1,043 | 12.6 | 16.6 | 17.1 | 42.7 | 3.9 |

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2015. The rate in 2015 was nearly double the 2005 rate of 10.2 percent, but this was largely due to a change in data collection techniques beginning in 2010. Inadequate prenatal care is defined as fewer than five visits for preterm pregnancies or fewer than eight visits for term pregnancies or prenatal care beginning after the first four months of pregnancy.

The rate of low birth weight (less than 2,500 grams) reached a record high of 8.4 percent in 2015 compared with rates of 8.2 percent in 2014 and 8.1 in 2005. Despite reaching a high rate, there have not been any dramatic changes in the rate overtime. The low birth weight rate has hovered around 8 percent for the last 15 years.

Other maternal and child health indicators presented in Table 3 show the following for 2015:

- The rate of out-of-wedlock births slightly rose from 40.3 to 40.4 percent between 2014 and 2015 and from 37.8 percent in 2005. Multiple births increased slightly from 3.5 percent to 3.7 percent of births.
- Short (less than 18 months) spacing between births remained at 12.1 percent in 2014 and 2015.
- The number and rate of Medicaid and WIC births both decreased, as did the number of mothers on Food Stamps.
- Abortions (See Table 1) decreased 8 percent in 2015 as 7,474 Missouri resident pregnancies were terminated compared with 8,129 in 2014.

Table 3
Trends in Maternal and Child Health Statistics: Missouri 2005, 2014 and 2015

| | <i>Numbers</i> | | | <i>Percents</i> | | |
|------------------------------------|----------------|--------|--------|-----------------|-------|-------|
| | 2005 | 2014 | 2015 | 2005 | 2014 | 2015 |
| Infant Deaths | 588 | 456 | 489 | 7.5* | 6.1* | 6.5* |
| White | 405 | 289 | 304 | 6.3* | 5.2* | 5.4* |
| Black | 170 | 122 | 134 | 14.8* | 11.4* | 12.7* |
| Low Birth Weight | 6,368 | 6,163 | 6,270 | 8.1 | 8.2 | 8.4 |
| White | 4,508 | 3,920 | 4,032 | 7.0 | 7.0 | 7.2 |
| Black | 1,651 | 1,558 | 1,568 | 14.4 | 14.5 | 14.8 |
| Inadequate Prenatal Care | 7,674 | 14,204 | 13,688 | 10.2 | 20.2 | 19.4 |
| White | 5,195 | 8,534 | 8,312 | 8.4 | 16.2 | 15.9 |
| Black | 2,084 | 3,424 | 3,194 | 19.6 | 35.6 | 33.9 |
| Teen(10-19) Births | 8,707 | 5,281 | 4,878 | 11.1 | 7.0 | 6.5 |
| White | 6,337 | 3,415 | 3,212 | 9.9 | 6.1 | 5.7 |
| Black | 2,145 | 1,117 | 978 | 18.7 | 10.4 | 9.2 |
| Early Teen (10-17) Births | 2,660 | 1,406 | 1,249 | 3.4 | 1.9 | 1.7 |
| Preterm (<37 weeks) (DLNM)** | 10,722 | 8,957 | 8,999 | 13.7 | 11.9 | 12.0 |
| Preterm (<37 weeks) (Obst. Est.)** | 8,375 | 7,322 | 7,507 | 10.7 | 9.8 | 10.0 |
| Multiple Births | 2,742 | 2,615 | 2,758 | 3.5 | 3.5 | 3.7 |
| Birth Spacing<18 mos. | 5,194 | 5,203 | 5,305 | 11.7 | 12.1 | 12.1 |
| Out-of Wedlock Births | 29,669 | 30,246 | 30,351 | 37.8 | 40.3 | 40.4 |
| Smoking During Pregnancy | 14,317 | 12,454 | 11,802 | 18.2 | 16.7 | 15.9 |
| Mother Obese | 16,655 | 18,814 | 19,281 | 22.4 | 25.4 | 26.0 |
| Medicaid Births | 36,775 | 30,229 | 29,878 | 47.5 | 40.7 | 40.3 |
| WIC Births | 32,954 | 31,746 | 30,572 | 42.6 | 43.0 | 41.5 |
| Food Stamps Births | 18,528 | 20,856 | 20,477 | 24.6 | 29.8 | 29.3 |
| C-Sections | 23,749 | 22,562 | 22,733 | 30.2 | 30.1 | 30.3 |
| Live Births | 78,547 | 75,104 | 75,042 | | | |

*Infant Death rates are per 1,000 live births.

**Beginning in 2014 the National Center for Health Statistics recommended using the obstetrical estimate of gestational age. The obstetrical estimate is considered more accurate than the previous method using the calculated difference between date of last normal menses (DLNM) and date of birth. Both methods are shown in this table to provide a comparison.

The 2015 number represents a 36 percent decrease from the 11,619 abortions ten years earlier.

- C-Sections increased slightly during the last year, resulting in an increase in the rate of all live births from 30.1 percent in 2014 to 30.3 percent in 2015.
- The rate of births to obese (BMI>30) mothers increased to 26.0 percent in 2015 from 25.4 in 2014 and 22.4 in 2005.

Marriages increased by 1.5 percent from 40,779 in 2014 to 41,377 in 2015, probably due to the legalization of same-sex marriages. Missouri had 726 reported same-sex marriages in 2015, although this number is considered incomplete because not all counties had the ability to report them throughout the year. Divorces decreased by 2.7 percent as 19,330 Missouri marriages were dissolved compared with 19,877 in 2014. The marriage to divorce ratio increased from 2.05 in 2014 to 2.14 in 2015.

The record levels of deaths in 2015 are the most discouraging news in this report. The mortality increase is partially explained by an aging population, but it also points to the continuing need for prevention efforts in reducing chronic diseases such as heart disease, cancer, chronic lung disease and stroke, as well as unintentional injuries. These include proper nutrition, regular exercise, smoking cessation, alcohol moderation and regular health screenings. On the positive side, preliminary 2016 data show a decrease in mortality from the record 2015 levels.